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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/886,064

06/21/2001

Jaap Andre Haitsma

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

CHEN, SHIN HON

ART UNIT

PAPER NUMBER

2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/07/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/886,064	HAITSMA ET AL.	
	Examiner	Art Unit	
	Shin-Hon Chen	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 3-6, and 8-10 have been examined.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/06 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains: Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 6, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter AAPA) in view of Hobson et al. U.S. Pat. No. 6633653 (hereinafter Hobson) and further in view of Liao et al. U.S. Pat. No. 6654479 (hereinafter Liao).

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5. As per claim 1, 6, and 10, AAPA discloses a method of embedding a watermark in an information signal, comprising means for embedding said watermark in successive portions of the information signal (AAPA: page 1 lines 16-23). AAPA does not explicitly disclose embedding different versions of watermark and said versions being different with respect to a property which is irrelevant for detection of said watermark. However, Hobson discloses different versions of same watermark can be embedded into each block-by-block watermark scheme wherein each version has different magnitudes of Fourier coefficients which are not used for detection of said watermark (Hobson: column 6 lines 45-62: the magnitude of the coefficient of transformation are variant and column 8 lines 34-44: apply in block by block watermarking scheme). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to embed different versions of same watermark in different blocks because both are used in block by block watermarking method. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Hobson within the system of AAPA because it increases security of data by using different version of same watermark on different blocks of the information signal thus making it more difficult to analyze watermark patterns and to detect tampering of image. AAPA as modified does not explicitly disclose the magnitudes are selected randomly according to no discernible pattern. However, Liao discloses randomizing the coefficients to generate different watermarks (Liao: column 1 line 64 – column 2 line 6; Davis: column 6 lines 16-26: Fourier transformation and other transformations). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to randomize the magnitude of coefficient of Fourier transformation to generate different watermarks to increase the complexity of watermarks.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Liao within the combination of AAPA-Hobson because generating different watermarks according to random numbers makes it more difficult to analyze the watermarking patterns.

6. As per claim 3, AAPA as modified discloses a method as claimed in claim 1. AAPA as modified further discloses wherein the watermark includes at least one basic watermark pattern being tiled over the portion of the information signal, said step of randomizing the magnitudes being applied to the Fourier coefficients of said basic watermark pattern (AAPA: page 1 lines 16-23: one watermark pattern tiled over the image; Liao: column 1 line 64 – column 2 line 6: change the magnitude of coefficient; Hobson: column 6 lines 45-58). Same rationale applies here as above in rejecting claim 2.

7. As per claim 5 and 9, AAPA as modified discloses a method as claimed in claim 1 and 6 respectively. AAPA as modified further discloses wherein said successive portions of the information signal are successive frames of a motion video signal (AAPA: page 1 lines 16-23).

8. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Hobson and further in view of Liao and further in view of Hayashi U.S. Pub. No. 20030161496 (hereinafter Hayashi).

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9. As per claim 4 and 8, AAPA discloses a method as claimed in claim 1 and 6 respectively. AAPA as modified does not explicitly disclose the method comprising means for randomizing the position of the watermark with respect to the respective portion of the information signal. However, Hayashi discloses that limitation (Hayashi: [0143]-[0145]). It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Hayashi within the combination of AAPA-Hobson-Liao because it improves secrecy of the embedded position of digital watermark information.

Response to Arguments

10. Applicant's arguments filed on 12/12/06 have been fully considered but they are not persuasive.

Regarding applicant's remarks, applicant argues that the prior art of record does not teach wherein the magnitudes are selected randomly without discernible pattern. However, Liao clearly discloses that the magnitudes are randomly selected to increase and decrease magnitudes for different subset of watermarks (Liao: column 2 line 66 – column 2 line 6). Since each watermark is subject to randomized magnitude, the pattern is clearly not discernible. Furthermore, since the randomization in magnitude is subject to each subset of watermarks, the entire data can be viewed as one big subset or plurality of smaller subsets upon choice and no discernible pattern will be traceable. Therefore, applicant's argument is respectfully traversed.

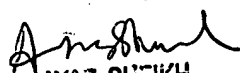
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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shin-Hon Chen whose telephone number is (571) 272-3789. The examiner can normally be reached on Monday through Friday 8:30am to 5:30pm.
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shin-Hon Chen
Examiner
Art Unit 2131

SC


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100